# THE 2ND INTERNATIONAL CONFERENCE ON SUSTAINING HERITAGE: EMBRACING TECHNOLOGICAL ADVANCEMENTS

29-30 SEPTEMBER 2024
VIRTUAL CONFERENCE
KINGDOM OF BAHRAIN

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**17** PARTNERSHIPS FOR THE GOALS

**8** DECENT WORK AND ECONOMIC GROWTH

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**4** QUALITY EDUCATION

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# The 2nd International Conference on Sustaining Heritage: Embracing Technological Advancements

# INTRODUCTION

In an era marked by rapid technological advancements and the ever-expanding reach of globalization, the preservation of both intangible and tangible heritage stands as an enduring challenge faced by nations across the globe. Amidst the backdrop of international efforts, including those led by the United Nations and its affiliated organizations, many nations and states are formulating national strategies to sustain their rich heritage using innovative and digital solutions. This endeavor aligns with the Sustainable Development Goals (SDGs), particularly those related to creating sustainable cities and communities, fostering decent work and economic growth, and forging partnerships for shared goals.

The first edition of the conference held in June 2023 proved to be a remarkable platform for the dissemination of cutting-edge research and insights in the field of heritage conservation and management. It garnered participation from a diverse cohort of researchers, practitioners, and policymakers, each contributing to an enriching exchange of ideas and experiences. Building upon the success of the inaugural event, the upcoming conference seeks to continue this legacy of fostering collaborative dialogue and impactful action in the realm of heritage preservation.

Against this dynamic backdrop, the central theme of this year's conference is the exploration of Innovative and Digital Approaches that underpin the sustainable preservation of diverse aspects, arts, and performances encapsulated within heritage, in both tangible and intangible manifestations. The conference aspires to be a scholarly nexus that embraces a multitude of approaches for preserving, representing, and nurturing heritage and culture.

Within this context, the conference aims to serve as a prestigious global platform, bringing together academic researchers, anthropologists, professionals from the tourism and hospitality sectors, business managers, development experts, specialists, and heritage connoisseurs. This gathering is poised to facilitate the exchange of ideas and novel strategies aimed at sustaining intangible and tangible heritage through the power of innovation and digitalization. It provides a vital interdisciplinary forum for the dissemination of knowledge and the exploration of the most recent innovations, trends, and practical challenges and solutions within the domains of cultural heritage—a burgeoning concern in both developing and developed nations. This interdisciplinary discourse also highlights innovative and digital methodologies to sustain heritage, thereby fostering partnerships that contribute to the national economy and extending the reach of governmental sectors in collaboration with international offices of the United Nations. The conference underscores the profound importance of heritage preservation in various spheres, including educational institutions, public and private sectors, the vibrant hospitality and tourism industry, and international forums and conferences. Consequently, the primary objective is to stimulate sustained heritage preservation through a rich tapestry of methods and environments.

We eagerly anticipate the transformation of this conference into a melting pot of inclusivity and multiculturalism, where heritage and culture in their tangible forms—encompassing architecture, fine arts, fashion, and design—are celebrated alongside their intangible counterparts, such as folklore, music, folktales, and language. Digital heritage and the sharing of success stories within the heritage context are wholeheartedly encouraged. Ultimately, the conference aspires to unravel the multifaceted dimensions of heritage and culture through diverse perspectives and a wide array of innovative approaches.

# CONFERENCE
# **PROGRAM**
# **SCHEDULE**

# DAY 01: 29 SEPTEMBER 2024

| 9:00 - 10:00 | **TECHNICAL SUPPORT** |
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|---|---|---|
| 10:00 - 10:05 | **CONFERENCE MAIN HALL** | National Anthem |
| 10:05 - 10:10 | | Welcome Note by Prof. Najla Allani |
| 10:10 - 10:20 | | President's Speech by H.E. Dr. Fuad Al Ansari, President of University of Bahrain |
| 10:20 - 10:30 | | Dean of Graduate Studies and Scientific Research Speech by Dr. Athraa Sabbas Sali Almosawi |
| 10:30 - 10:40 | | Dean of College of Engineering Speech by Dr. Haifa Ebrahim Mohamed Alkhalifa |
| 10:40 - 11:15 | | Keynote Speech Prof. Christer Gustafsson (Sweden) |
| 11:15 - 11:50 | | Keynote Speech Prof. Hossam Elborombaly (Egypt) |

| 11:50 - 12:30 | BREAK |
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|---|---|---|
| 12:30 - 12:50 | | |
| 12:50 - 13:10 | | |
| 13:10 - 13:30 | **SESSION A1** | **SESSION A2** |
| 13:30 - 13:50 | | |
| 13:50 - 14:10 | | |

Closing Remarks: End of Day 01

# *DAY 02: 30 SEPTEMBER 2024*

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|---|---|
| 9:00 - 10:00 | **TECHNICAL SUPPORT** |

**CONFERENCE MAIN HALL**

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| 10:00 - 10:40 | Keynote Speech Dr. Mounir Bouchnaki (Bahrain) |

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| 10:40 - 11:00 | | | |
| 11:00 - 11:20 | | | |
| 11:20 - 11:40 | **SESSION B1** | **SESSION B2** | **SESSION B3** |
| 11:40 - 12:00 | | | |
| 12:00 - 12:20 | | | |

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|---|---|
| 12:20 - 12:30 | BREAK |

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|---|---|
| 12:30 - 12:50 | |
| 12:50 - 13:10 | |
| 13:10 - 13:30 | **SESSION C1** |
| 13:30 - 13:50 | |
| 13:50 - 14:10 | |

Closing Remarks: End of Day 02

# A1-A2

## CONFERENCE
# PARALLEL
# SESSIONS

*The 2nd International Conference on Sustaining Heritage: Embracing Technological Advancements*

# DAY 01: 29 SEPTEMBER 2024
# SESSION A1  🕐 12:30 - 14:10

Moderator: Dr. Manal Khalaf | Co-Moderator: Noor Alalawi

Link to session: **Session A1**

**1**

A Deep Learning-Based Approach for Damage Detection in Cultural Heritage Images and Generating Heat Maps

*Çağatay Umut Öğdü; Merve Yilmazer; Mehmet Karakose*

**2**

Reconstructing Artistic Heritage: Style Transfer in Ottoman Miniature Paintings using Pre-trained CNN with PSNR based Image Similarity

*Turan Goktug Altundogan; Mehmet Karakose*

**3**

From Ancient Legends to Well-being: The Digital Transformation of Five Animal Frolics

*Yue Zhang; Qiuyue Yan; Ange Gao*

**4**

Preserving the Unseen: Innovative Approaches to Safeguarding Intangible Cultural Expressions through Immersive Technologies

*Shiva Mehta; Vinay Kukreja*

**5**

Improving the Tour Booking Intention in Tourism Through Digitalizing Cultural Intangible Heritage: Evidence From Vietnam

*Bui Thanh Khoa*

**Link to session: Session A2**

**1**

The Impacts of Unsustainable Urbanization on the Cultural Heritage

*Abdulkarim Hasan Rashed*

**2**

Unveiling the Role of Explorebeds in Digital Cultural Tourism, Heritage Preservation, and Sustainable Development: A Case Study in Bahrain

*Karim Ben Yahia; Zafrul Allam; Ansa Savad Salim*

**3**

Innovative Engagement for Cultural Preservation: Dilmun Burial Mounds and Pottery Making in Bahrain

*Ashraf Mohamed Talat Ibrahim Ali*

**4**

How to improve the destination choice in heritage tourism through tourism digitalization: Case of Vietnam

*Bui Thanh Khoa; Tran Trong Huynh*

**5**

Potentials of Employing Digital Technologies for Advancing Sustainable Tourism, and Preservation of Historic Sites: Insights from Manama, Bahrain

*Ayesha Agha Shah*

# CONFERENCE
# PARALLEL
# SESSIONS

*The 2ⁿᵈ International Conference on Sustaining Heritage: Embracing Technological Advancements*

B1-B3

DAY 02: 30 SEPTEMBER 2024

# SESSION B1 🕐 10:40 - 11:20

Moderator: Dr. Karim Ben Yehia | Co-Moderator: Jovianne Francisco

**Link to session: Session B1**

**1** Analysis and Impact of Digital Influence in Hospitality and Tourism Industry

*Reena George; Ved P Mishra*

**2** A Preliminary Study on using 3D Audio Rendering with a 2D Game Engine for Immersive Digital Storytelling

*Fritz Menzer*

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*ADVANCEMENTS IN DIGITAL ARCHAEOLOGY AND HERITAGE CONSERVATION*

DAY 02: 30 SEPTEMBER 2024

# SESSION B2 🕐 11:20 - 12:00

Moderator: Dr. Karim Ben Yehia | Co-Moderator: Jovianne Francisco

**Link to session: Session B2**

**1** The Role of Image Inpainting Techniques in the Restoration of Artworks: An Evaluation and Comparative Study

*Osman Furkan Kucuk, Niyazi Furkan Bar; Mehmet Karakose*

**2** Machine Learning's Significance in Improving the Conservation of Traditional Building Facades in Heritage Areas

*Islam Hamdi El Ghonaimy; Walaa Fathi Abdullah Sultan*

# DAY 02: 30 SEPTEMBER 2024
# SESSION B3 🕐 10:40 - 12:20

Moderator: Dr. Anamika Jiwane

**Link to session: Session B3**

**1**

Securing Cultural Heritage: Blockchain Technology for Artifact Documentation and Authentication

*Shiva Mehta; Vinay Kukreja*

**2**

The Scope and Definitions of the Smart Tourism Industry: From Reality to Mixed Reality

*May Jalal Al Saffar*

**3**

The Evolution of Cultural Tourism in the Gulf States: Exploring the Emergence of Heritagization

*Mohammad Saad Hanif Haji*

**4**

Blockchain Application in Documentation-Challenges and Future Prospects

*Sathish Kumar M; Rahul Singh Gautam; Ganeshkumar D. Rede; Shailesh Rastogi*

**5**

The Socio-Economic Changes in the Traditional Cities: A Case Study of Najaf, Iraq

*Ula Merie; Sabeeh Lafta Farhan; Dhirgham Alobaydi*

# CONFERENCE
# **SESSION**

*The 2nd International Conference on Sustaining Heritage: Embracing Technological Advancements*

C1

# DAY 02: 30 SEPTEMBER 2024
# SESSION C1  🕐 12:30 - 13:50
Moderator: Fariel Khan  |  Co-Moderator: Nazish Abid

Link to session: **Session C1**

**1**

### Sharing and Celebrating Heritage Through Technology: Empowering Local Communities

*Zafrul Allam; Karim Ben Yahia; Nasir Ali; Sayeeduzzafar Sayeeduzzafar; Ansa Savad Salim; Aloma Jayasundera*

**2**

### Data-Driven Solutions for Revitalizing Historical Urban Areas: Case of Lado Sarai Delhi

*Somi Sareen; Nazish Abid; Mazharul Haque*

**3**

### Preserving the Historical Jassan Hill Using 3D Scanning Techniques

*Hussein Ismael Ahmed; Sabeeh Lafta Farhan*

**4**

### Crowdfunding's Impact on Urban Cultural Districts: A Comprehensive Analysis

*Deepak Pandurang Gavade*

# COMMITTEE

**Conference Chairperson**
*Dr. Fuad Al Ansari, President of University of Bahrain*

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